

3. AFFECTED ENVIRONMENT

Chapter 3 of this Site-Wide EA describes the existing environmental, social, and economic conditions directly and indirectly related to the project site, site circumstances, and the Proposed Action.

3.1 LAND USE, PLANNING, PUBLIC POLICY, SOCIOECONOMICS

3.1.1 Existing Land Uses

Project Site

The NWTC is located within the northwest corner of the RFETS. The NWTC and RFETS are located in unincorporated Jefferson County. The NWTC's northern boundary is the Jefferson County/Boulder County line. Unincorporated portions of Jefferson County and the communities of Arvada, Westminster, Broomfield, and Superior are located east of RFETS (see Figure 1-2). Boulder County owns the land located north of Highway 128 and generally west of McCaslin Boulevard and the land between Highway 128 and the NWTC's northern border. The western limits of the Town of Superior include some parcels west of McCaslin Boulevard and north of Highway 128. The Town of Superior has also annexed the right of way for Highway 128 to a point immediately east of the NWTC access road intersection with Highway 128. The land immediately east of RFETS (east of Indiana Street) is within the City and County of Broomfield and City of Westminster (see Figure 1-2). Past annexations have changed jurisdictional boundaries further east and south in recent years. Some annexation efforts are still pending (Oglesby, 2001).

Land uses on the project site include research and development facilities, office buildings, and test sites. The largest structure is Building 251, which is the main office building on-site (see Chapter 1, Chapter 2 and Figure 1-3 for additional details about existing land uses). Photographs of the project site and vicinity are presented at the end of Chapter 3 as Figure 3-2.

The test site area is located south of the main site access road and occupies most of the site. Test sites are composed of utility connections, various foundations for meteorological and turbine towers, and associated equipment and facilities. Development on and around the test sites is temporary and may include small utility buildings, foundations for guy wires, and temporary and/or permanent access roads.

Surface rights at the NWTC are owned by DOE. Mineral rights are owned by private entities. The mineral rights for the western 160 acres of the site are owned by Rocky Mountain Fuel and apply to the extraction of coal, shale, oil, and natural gas. The mineral rights for the eastern 145 acres of the site are owned by the Spicer family and are currently leased by Mineral Reserves, Inc. (see Figure 3-1). Active aggregate mining and processing facilities are located to the south and west of the NWTC.

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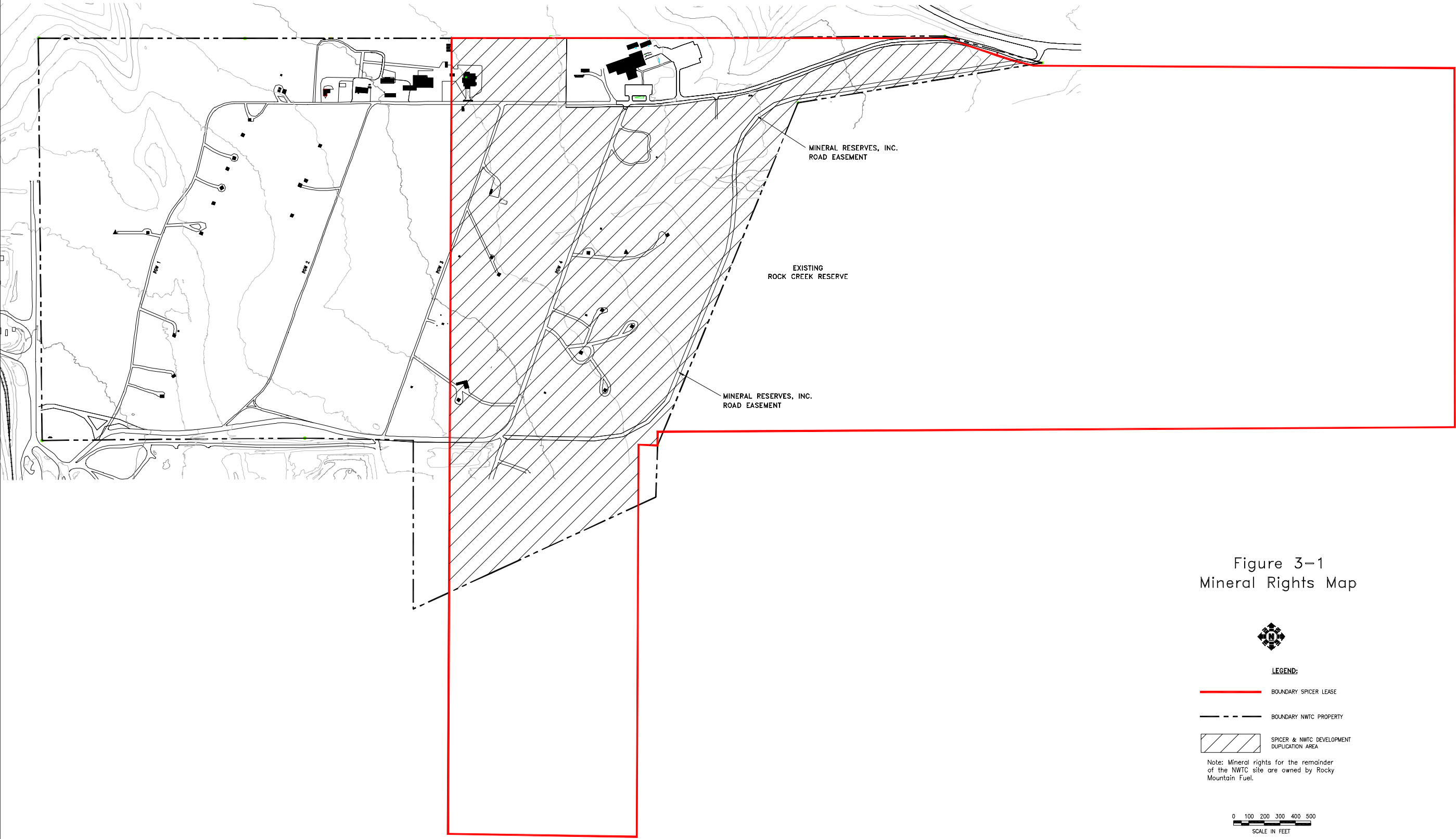


Figure 3-1
Mineral Rights Map



LEGEND:

— BOUNDARY SPICER LEASE

- - - BOUNDARY NWT PROPERTY

 SPICER & NWT DEVELOPMENT
DUPLICATION AREA

Note: Mineral rights for the remainder
of the NWT site are owned by Rocky
Mountain Fuel.

0 100 200 300 400 500
SCALE IN FEET

BASE MAP SOURCE: NREL, 2001
FILE NAME: MINERAL_RIGHTS.dwg
DATE: 5/09/02

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A July 27, 1995 Utility Right-of-Way Grant of Easement and an MOU between Western Aggregates, Inc. and the DOE (Golden Field Office) created a 20-year moratorium on mining activities on the eastern 120 acres of the site. Via this agreement, DOE granted a road easement over which Mineral Reserves, Inc., as successor in interest to Western Aggregates, Inc. and a corporate affiliate of LaFarge West, Inc., may construct, at no cost to DOE, a roadway connecting LaFarge facilities to Highway 128. The general location of the easement is shown in Figure 3-1.

The road to be placed in the easement is not described in the utility easement MOU. No road facility has been designed or proposed, and there is no short-term or long-term plan or schedule in place for use of this easement. Consequently, construction and use of a road within the easement is not considered in this analysis. Any proposal by Mineral Reserves, Inc. to develop/use the road easement would be subject to a separate NEPA analysis when a formal proposal is submitted for DOE consideration.

Surrounding Areas

Land uses on properties contiguous to the site include dedicated Boulder County and City of Boulder open space to the north, dedicated buffer lands of the RFETS and the recently designated National Wildlife Refuge to the east and south, and industrial uses (AMS Drilling and Blasting) to the west and aggregate mining to the southwest. Beyond the industrial and aggregate facilities and west of Highway 93 is the Hogan Ranch, including a single-family dwelling and ranching facilities. The Rocky Flats Lounge is located south of the Hogan Ranch on the west side of Highway 93. Old Tyme Lumber (sawmill) and undeveloped parcels of land currently offered for commercial development are located along the east side of Highway 93, south of the site and west of the RFETS boundary. This land, the Church Ranch Business Park and the Vauxmont area (located south of Rocky Flats and east of Highway 93), are undeveloped or underdeveloped at this time. Most of the land west of Highway 93 is dedicated open space. However, there is some existing and planned residential development in the mountains where Highway 72 enters the mountains.

The project vicinity beyond these contiguous areas is characterized by open space to the north and west, expanding residential and commercial development to the east involving the communities of Superior, Arvada, Broomfield, Westminster, and unincorporated areas of Jefferson County, and the industrial facilities on the RFETS to the south.

The aggregate mining facilities west and southwest of the site are comprised of surface excavations, material conveyors, rail lines and processing facilities. Two companies, TXI and LaFarge operate on separate, but contiguous sites located between Highway 93 and the project site's western boundary. Mineral Reserve, Inc.'s aggregate mining operation is located south of the site.

Jefferson County Airport is located due east of the site near the U.S. Highway 36/Highway 287 interchange. Airport runways are aligned in a northeast/southwest configuration. Aircraft takeoff and landing patterns do not pass directly over the NWTC.

3.1.2 Applicable Local Plans, Policies and Anticipated Future Development

Although the land use plans and policies of local governments are not applicable to federal lands, these plans and policies set forth important affected environment context for the site and surrounding areas. The following discussions focus on land use and planning matters. Policies associated with specific technical issues, such as traffic and visual resource protection, are addressed in the corresponding sections of this document.

Rocky Flats Environmental Technology Site (RFETS)

The current mission at RFETS is cleanup and closure with remediation efforts to be completed by 2006. Legislation recently approved by Congress has dedicated the site as a National Wildlife Refuge.

Boulder County and City of Boulder

Boulder County and the City of Boulder jointly own and manage open space north of the project site (Moline, 2001). Two trailheads are located near the intersection of Highways 93 and 128. The Greenbelt Plateau trailhead is located just east of the intersection along Highway 128. This trailhead provides parking for trails to the north. The Flatirons Vista trailhead provides parking for hikers headed west. No trailheads or trails have been provided southeast of the intersection of Highways 93 and 128. The Colton trailhead on the north side of Highway 128 is located approximately one mile (1.6 kilometers) east of the NWTC entrance to Highway 128. This trailhead provides parking for a trail north of Highway 128.

No land development in the project vicinity is planned within Boulder County or the City of Boulder (Moline, 2001).

Jefferson County

The Jefferson County North Plains Community Plan, prepared in April of 1990, provides goals, policies and design guidelines for an area called the North Plains Study Area. The Study Area boundaries are roughly defined by the Boulder County/Jefferson County/Adams County lines to the north and east, I-70 and U.S. Highway 58 to the south, and the base of the mountains west of Highway 93. The NWTC is located in the Study Area's North & Central Subarea. The NWTC site and the remainder of the RFETS are designated as a "Special Use" on the plan's Summary Map. Areas south and west of the Rocky Flats site are designated for retail, office or industrial uses.

The Jefferson County zoning for adjacent private properties is I-2 Industrial-Two District. A wide range of manufacturing, processing, and fabrication uses, along with many other industrial activities including rock crushing, are permitted in the I-2 District.

Jefferson County has a 30-day site approval process for new development proposals. NREL and the NWTC are not required to follow this process for new facility development (Gibson, 2001).

Superior, Broomfield, Arvada and Westminster

The communities of Superior, Broomfield, Arvada and Westminster address land use issues west of U.S. 36 and east of the project site. There is no single unifying plan for development in this area, but these communities are working together to address rapid development and development pressures in this fast growing part of Colorado.

The Town of Superior is located between the Boulder-Denver Turnpike (U.S. 36) to the north and Highway 128 to the south, just six miles east of the City of Boulder. Superior is in Boulder County with a small southern portion of land in Jefferson County.

In 1987, Superior approved a proposed development southeast of the original town that would allow new residential development and the creation of both a water and sewer treatment plant. The treatment plants would have the capability of providing clean water and sewer service to all of Superior, even after full development. The new development is known as Rock Creek Ranch. Although the land was subdivided in 1987, development is still ongoing. Through the year 2000, approximately 1,900 single-family homes and 1600 multi-family homes have been developed in Rock Creek, with an additional 171 homes in the Sagamore subdivision.

Superior recently selected a consulting firm to help update Superior's Comprehensive Plan. A Draft Preferred Land Use Alternative map for Superior was the first step. This map represents a combination of input received from citizens, the Town Board, and the Planning Commission. An update of the Community Framework Plan, a detailed graphic representation of future development, was recently submitted for review. This plan anticipates future development that includes commercial and retail development, multi-family residential units, single-family homes, and a second school.

Superior's population as presented in the year 2000 Census is 9,011. The City's current estimate is 11,600 residents. Superior anticipates a buildout population of approximately 15,400. Buildout forecasts have been altered by recent economic changes. The City currently estimates buildout will occur in 2010 (Hoffman, 2001).

Over the last five years, Broomfield has grown extensively with the buildout of the Interlocken Business Park, the opening of Flatirons Crossing Mall in August of 2000 (1.5 million square-feet), and peripheral commercial and office development. As a result of development in Superior, Broomfield, Arvada and Westminster in the last five years, land use conditions along Highway 128 from U.S. 36 to McCaslin and east of RFETS have been transformed, and more sites are set for future development. However, the unusually rapid growth in office development has abated to some degree due to economic changes in the telecommunications industry, high technology, and internet (.com) market sectors. Consequently, the fastest growing commercial area in the state now has the highest office vacancy rates in the state. In addition, regional land development and corresponding traffic forecasts by the Denver Regional Council of Governments (DRCOG), the local Metropolitan Planning Organization (MPO), and those used in the recent Northwest Quadrant Feasibility Study, now may overestimate long-term development rates (Oglesby, 2001)

Overall Future Development Pattern

Based on future use of the RFETS as a National Wildlife Refuge, long-term public open space acquisitions, natural resource preservation efforts, and restoration requirements for aggregate

mining areas, the NWTC will be virtually surrounded by large tracts of undeveloped land long into the future. The only substantial areas for development will be narrow areas along Highway 93 west of the site and properties located east and south of RFETS in Broomfield, Westminster, Superior and Jefferson County.

3.1.3 Population Growth

The U.S. Census Bureau, state governments, and various local governments collect demographic information. The U.S. Census Bureau has released only a portion of the information that was accumulated during the 2000 Census. Currently available information provides details of population, race, and ethnicity.

Jefferson County

In summary, Jefferson County is Colorado's second largest county and has the largest unincorporated population in the state. Jefferson County grew 20.2% in the past ten years, from a population of 438,430 in 1990 to 527,056 in 2000. The County increased by 88,626 persons, a yearly growth rate of about 2%.

Denver-Boulder Metropolitan Area

The Denver-Boulder metropolitan area grew nearly 30%, from 1.85 million in 1990 to 2.4 million in 2000. For comparison, the Colorado Springs metropolitan area also grew 30% from 397,000 to 517,000, and the Greeley and Ft. Collins metropolitan areas both grew faster, at 37.3 and 35.1 percent, respectively. The largest county, based on the 2000 census, was Denver, with a population of 554,636 persons.

One of the fastest growing municipalities in Colorado was Superior. Superior is located due east of the NWTC and had a growth rate of 34% over the last 10 years (see Figure 1-2).

Colorado

Between 1990 and 2000, Colorado grew from 3.3 to 4.3 million people. The increase of slightly over 1 million persons was a 30.6% increase from 1990. The ten counties of the metropolitan Front Range increased from 2.7 million in 1990 to 3.5 million in 2000, or 30.0%, slightly less than the state average. However, the 800,000 increase in population in these 10 counties constituted over 80% of the increase in the state total.

3.1.4 Ethnicity and Income

Colorado's population in 2000 was defined by the U.S. Census to be 82.8% white, compared to the U.S. average of 75.1 percent. There are no concentrations of minority or low-income populations in the vicinity of the NWTC.